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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,731	11/14/2003	Jin-Hyuck Heo	11038-109-999	2695

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EXAMINER
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SPISICH, GEORGE D

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/713,731	<b>Applicant(s)</b> HEO, JIN-HYUCK	
	<b>Examiner</b> George D. Spisich	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/14/03</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the complete system should be shown in Figure 7 or the feature(s) canceled from the claim(s). Presently, in Figure 7, it is not shown how the shock absorbers (40,50) are fluidly linked with the clutch or the location of the remaining elements (such as the accumulator, actuators, etc.). Figure 1 is a schematic of the system but is not adequate in showing the system in operation. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 3616

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

The term "decoupled" in claim 1, line 1 should be replaced with - - decoupleable -  
- as the system is claimed and operates as both coupled and uncoupled.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

Art Unit: 3616

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. .

It is unclear from the specification and the Figures, how the system is linked to enable the oil pressure generating apparatus (40,50) to be fluidly linked to the clutch (30). This connection is disclosed in the specification and schematically shown in Figure 1. However in Figure 7, which shows the system in a vehicle, it is unclear to the Examiner how the upright shock absorbers (40,50) in Figure 7, which are disclosed in the specification as the oil pressure generating apparatus and having the particular detail of Figure 2 and shown in the schematic of Figure 1, are fluidly linked to the clutch.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 11, there is claimed "supplemental fluid passages". This is unclear since the term supplemental is defined as additional and it is unclear to claim additional passages when a first passage has not been claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3616

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiber et al. (USPN 4,919,444).

Leiber et al. discloses a decoupleable anti-roll system for a vehicle suspension comprising a left and right anti-roll bars (2' and 2") are configured to be fastened at one end to left and right suspension arms (5), a clutch (4) mounted to connect or separate the left and right anti-roll bars.

Leiber et al. discloses an oil pressure generating apparatus (8) configured to generate oil pressure when the vehicle rolls, an accumulator (11) connected to the oil pressure generating apparatus, actuators (41) for activating the clutch via the oil pressure generated from the oil pressure generating apparatus to connect or separate the left and right anti-roll bars.

Leiber et al. discloses a controller (15) that controls valves (42,43,13) based on a sensor (16,16',16",17) that detects inertial forces in a transverse, i.e. roll.

Although Leiber et al. discloses control valves and sensors, it does not specifically disclose solenoid valves or sensor that detect roll or relative ascent or descent of an axle of the vehicle suspension, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use solenoid valves since the Examiner take Official Notice of the equivalence of control valves and solenoid control valves for their use in the fluid control art and the selection of any of these known equivalents to control the fluid system of Leiber et al. would be within the level of ordinary skill in the art.

With respect to the sensors of Leiber et al., it is broadly interpreted that as there are multiple sensors which sense the transverse inertial forces of the vehicle is it within reason to state that the sensors either directly or indirectly sense the ascent and descent of the axles of the vehicle suspension and the roll of the vehicle and subsequently control the clutch in accordance with the sensing of these conditions.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ersoy et al. (USPUB 2004/0169346), Nuss (USPN 4,648,620), Struss et al. (USPN 6,149,166), Beetz et al. (USPN 6,951,341), Schuelke et al. (USPN 6,425,585), Ignatius et al. (USPN 6,637,757), Carlstedt et al. (USPN 6,811,166), JP2005-170195, JP01-168511, EP 1 236 592, JP2003-112510.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George D. Spisich  
October 23, 2005



  
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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600